

USAID/J-CAR

Summary of Environmental Program

From Ridge to Reef
STRATEGIC OBJECTIVE TWO



Environmental Strategic Objective

Improved quality of key natural resources in selected areas that are both environmentally and economically significant.

From Ridge to Reef

- Links reductions in upper watershed deforestation, pollution and land erosion to improvements in coastal water quality
- Activities/projects within the environmental portfolio are such that they attempt to mitigate environmental problems in the uplands and lowlands that impact on the coastal zone
- This concept represents a more integrated approach to addressing problems such as land degradation and deterioration of water quality.

Our Activities

- Ridge to reef watershed project (R2RW)
- Coastal water quality improvement project (CWIP)
- Environmental audits for sustainable tourism (EAST)

Target Sites



R2RW

Ridge to Reef Watershed Project

- Duration:
 - Five years (2000 - 2005)
- Funding
 - US\$6.1 million
- Target Sites:
 - Great River, Rio Grande Watershed Mgt. Units
- Collaborating Agencies
 - NEPA-NRCA, Forestry Department, NGOs, RADA/Min. of Agriculture
- Technical Assistance
 - Associates in Rural Development, Inc. (ARD)



R2RW

Ridge to Reef Watershed Project

Project Objective

*Natural resources under
improved and sustainable
management in identified
watersheds*



Ridge to Reef Watershed Project

PRINCIPLES OF IMPLEMENTATION

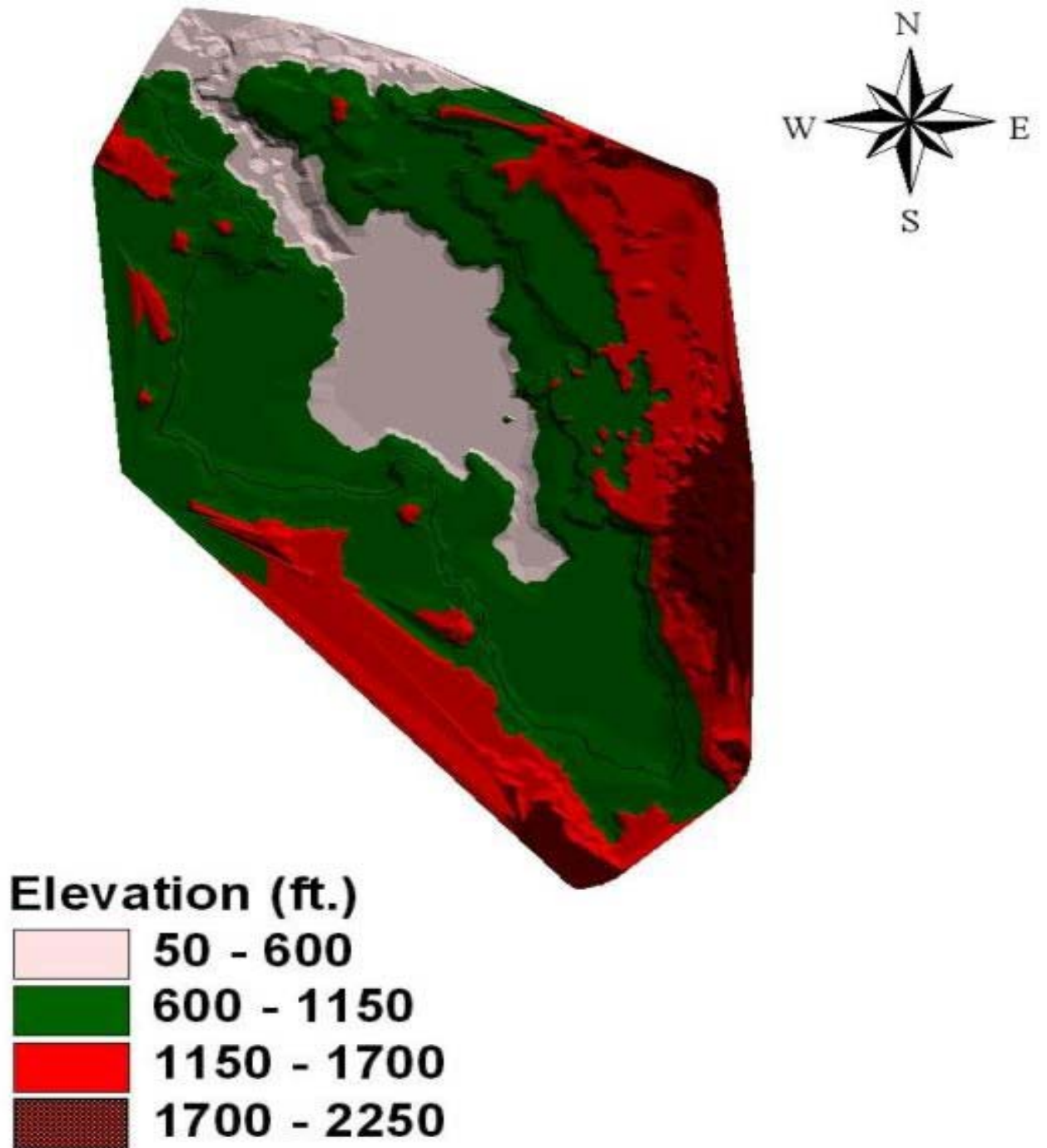
- **Demand-driven**
- **Results oriented**
- **Sustainable & collaborative -- working through strategic partners**
- **Focused, practical, flexible, and doable**
- **Buttressed - with Technical Assistance**



Ridge to Reef Watershed Project

- Working with targeted local organizations to identify and promote sustainable environmental management practices
- Identifying existing incentives and constraints affecting the enforcement of selected existing environmental regulations
- Enhancing the capacity of stakeholder organizations to implement effective watershed management programs

Topography of the Great River Watershed





Component 1 Activities

- **Complete Baseline Assessment**
- **Stimulate Communication and Public Awareness**
- **Support the Adoption of Targeted Improved Practices**
- **Enhance Community Involvement**
- **Encourage Private Sector Participation**

Component 2 Activities

- **Inventory of Regulatory Framework**
- **Advise NEPA on Legal Reform**
- **Policy Improvement**
- **Improved Legal Enforcement Capacity**
- **Economic Incentives/Disincentives**
- **Public Awareness**
- **Community-Based Enforcement**
- **Advocacy**

Component 3 Activities

- **Enhance NEPA's Capacity in Watershed Management**
- **Increase public sector involvement**
- **Develop EE programs in watershed management**
- **Facilitate Coordination Mechanisms**
- **Training**
- **Special Studies**



Ridge to Reef Watershed Project

- **R2RW Working With Communities in the Great River Watershed**
 - Community consensus to prioritize action areas achieved through a Strategic Action Planning Workshop. Priority areas identified include:
 - Public Awareness
 - Establishment of a nursery
 - Low-cost, low-maintenance sanitation solutions
- **National Integrated Watershed Council**
 - Assisted in logistics and technical support for the launch of the National Integrated Watershed Council.



Ridge to Reef Watershed Project

- **The Great River Watershed Management Committee**
- The Great River Watershed Management Committee (GRWMC) was established with community, parish and national representatives from government, non-government and private sector agencies. The first official meeting of the GRWMC established four Task Forces (or sub-committees):
 - Sanitation
 - Public Awareness
 - Agricultural Production and Marketing
 - Community Enforcement
- **Strengthening and Capacity Building of NEPA's Watershed Branch**
 - Work continues with the Sustainable Watersheds Branch of the National Environment and Planning Agency (NEPA).



Ridge to Reef Watershed Project

Lessons Learned

- **Involve stakeholders in the selection, planning, designing, managing and implementation of projects.**
- **Training should target both the implementing agency and community representatives.**
- **Technologies should be appropriate and easily adaptable.**
- **Incentives need to be considered.**
- **Flexibility must be designed into project mechanisms.**
- **Commitment and enthusiasm of managers is important in achieving project success.**



Coastal Water Quality Improvement Project

- **Duration:**

Six years (1997 - 2002)

- **Funding:**

US\$8 million

- **Target Sites:**

Negril, Ocho Rios, Port Antonio

- **Collaborating Agencies:**

NEPA-NRCA, NWC, NGOs

- **Technical Assistance:**

Associates in Rural Development, Inc. (ARD)



Coastal Water Quality Improvement Project

CWIP promotes sound environmental practices and partnerships through an integrated coastal resources management approach by working with all sectors of society from community to government



Framework

**Coastal Water Quality
Improvement Project**

CR 1

**Community-based
Initiatives**

CR 2

**Wastewater
Management**

CR 3

**Environmental
Management
Systems**

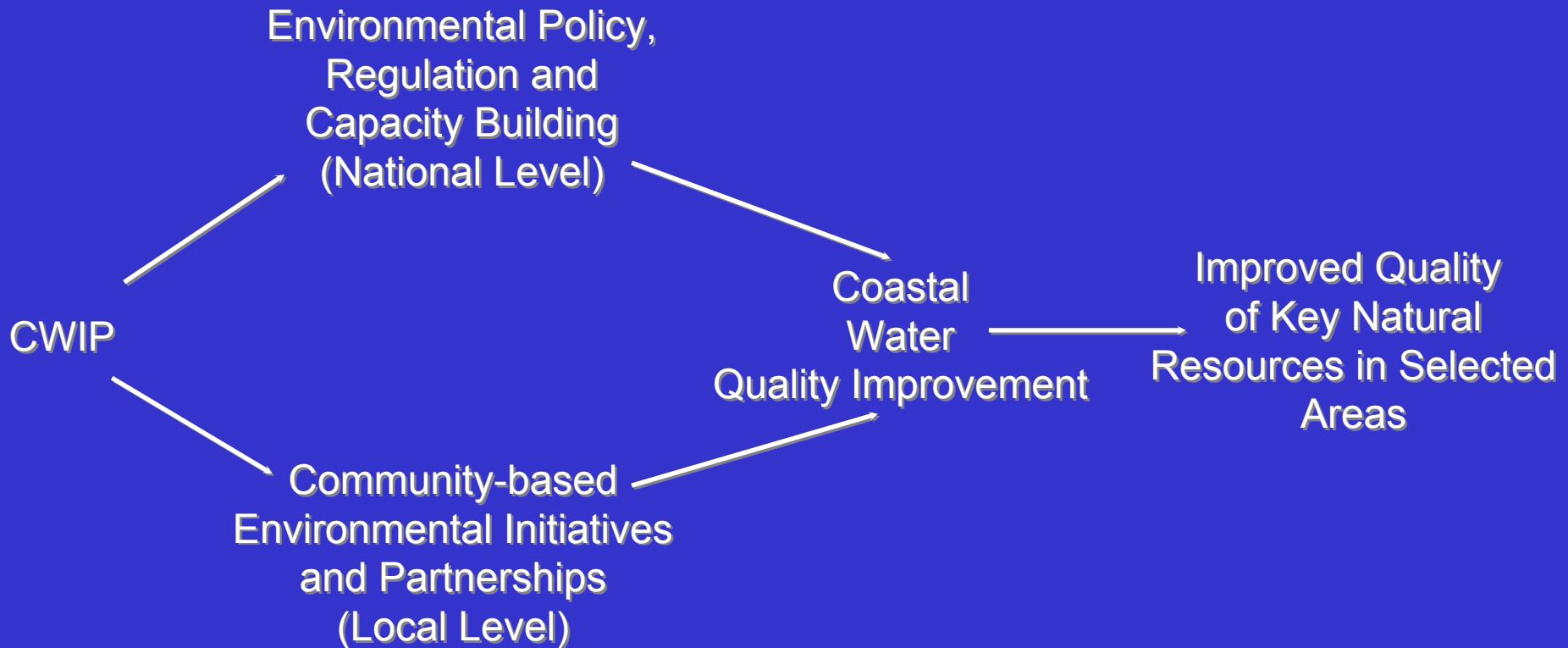
CR 4

**Water Quality
Monitoring
Program.**

CR 5

**Coastal Zone
Management**

Strategy



Community-based Initiatives

- Action planning approach for community mobilization developed & demonstrated
- Organizational capacity of 15 civil society groups strengthened through extensive management training
- Capacity of local communities enhanced to identify & address environmental issues
- 24 grants, totaling almost \$US 1 million, disbursed to through these local partners for environmental management projects
- Comprehensive environmental education & action program supported in major tourist destinations

Negril Accomplishments

- Two strategic partners capacity strengthened & USAID certified to handle grants
- Four CB-ENR grants completed successfully by NEPT
- Solid waste management, Greening of Negril, and recycling center by NCC
- 12 grants managed by partners = US \$420,000
- Other grant funds leveraged by partners

Ocho Rios Accomplishments

- Action planning approach (APM) to mobilize partners demonstrated
- Strategic partnerships with SACOC & DBML
- CB-ENR projects implemented for solid waste management, marine park, & sustainable farming
- Stakeholder advisory group established (EAG)
- 11 grants implemented = US \$605,000

Port Antonio Accomplishments

- Rapid site socioeconomic and organizational survey completed
- Priorities identified in participatory Stakeholder Action Planning Workshop
- PDC Task Force for CWIP activities organized
- Proposals being developed for environmental education, water quality monitoring, solid waste management, PAM, and community wastewater advisory group

Community-based Initiatives



Wastewater Operations

- Introduced and sustained public participation model, between communities and NWC, to oversee effective management of wastewater systems
- Strengthened NWC capacity for public private partnerships (PPP)
- Supporting review of tertiary treatment in wetlands as treatment options
- Emphasis on improving operator performance

Environmental Management Systems

- Supported development of EMS policy – Green Paper in June, 2001
- Improve EMS information access to public – support for pilot pollution register
- Supported CB-solid waste management
- Trained SMEs in EMS approaches
- JBSF Technical Information Clearinghouse for EMS

Water Quality Monitoring

- Partnerships between NGOs, communities, private sector and government for monitoring coastal water quality created
- Integrating community efforts into National Coastal Water Quality Monitoring Program
- Apply verifiable water quality data to environmental decision making
- Linking incentives for participation in WQM to “market factors”, such as Green Globe and Blue Flag programs

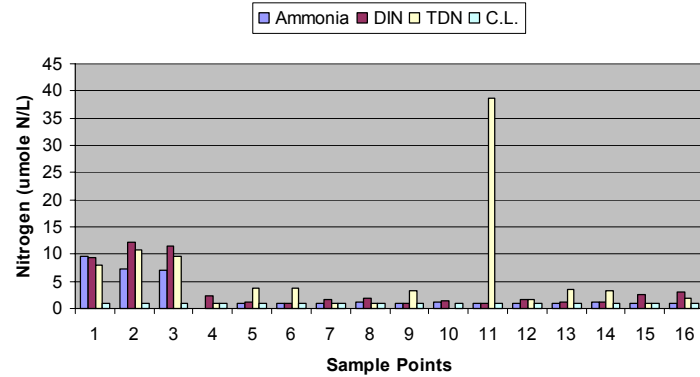


Negril Water Quality Data

NEPA

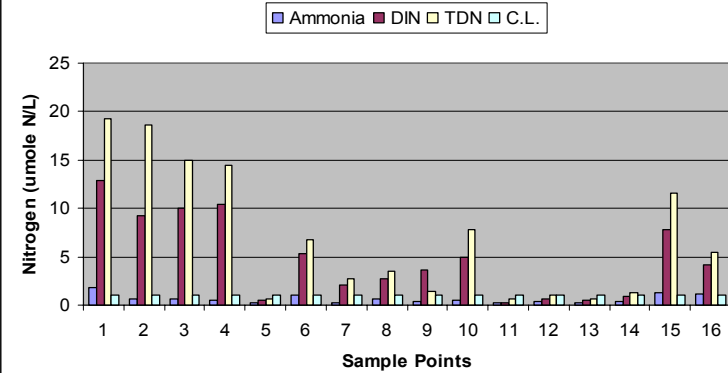


Nitrogen Concentration



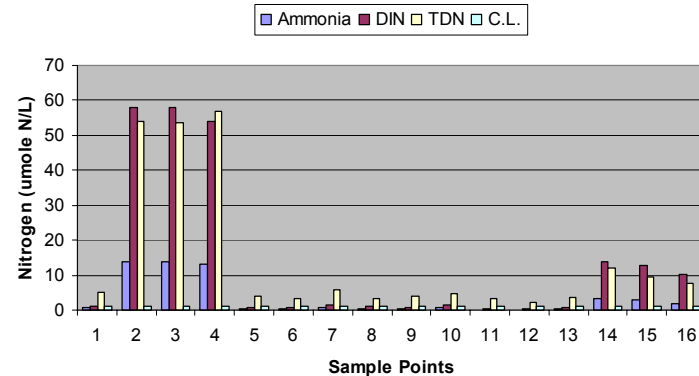
**December
(1999)**

Nitrogen Concentration



**February
(2000)**

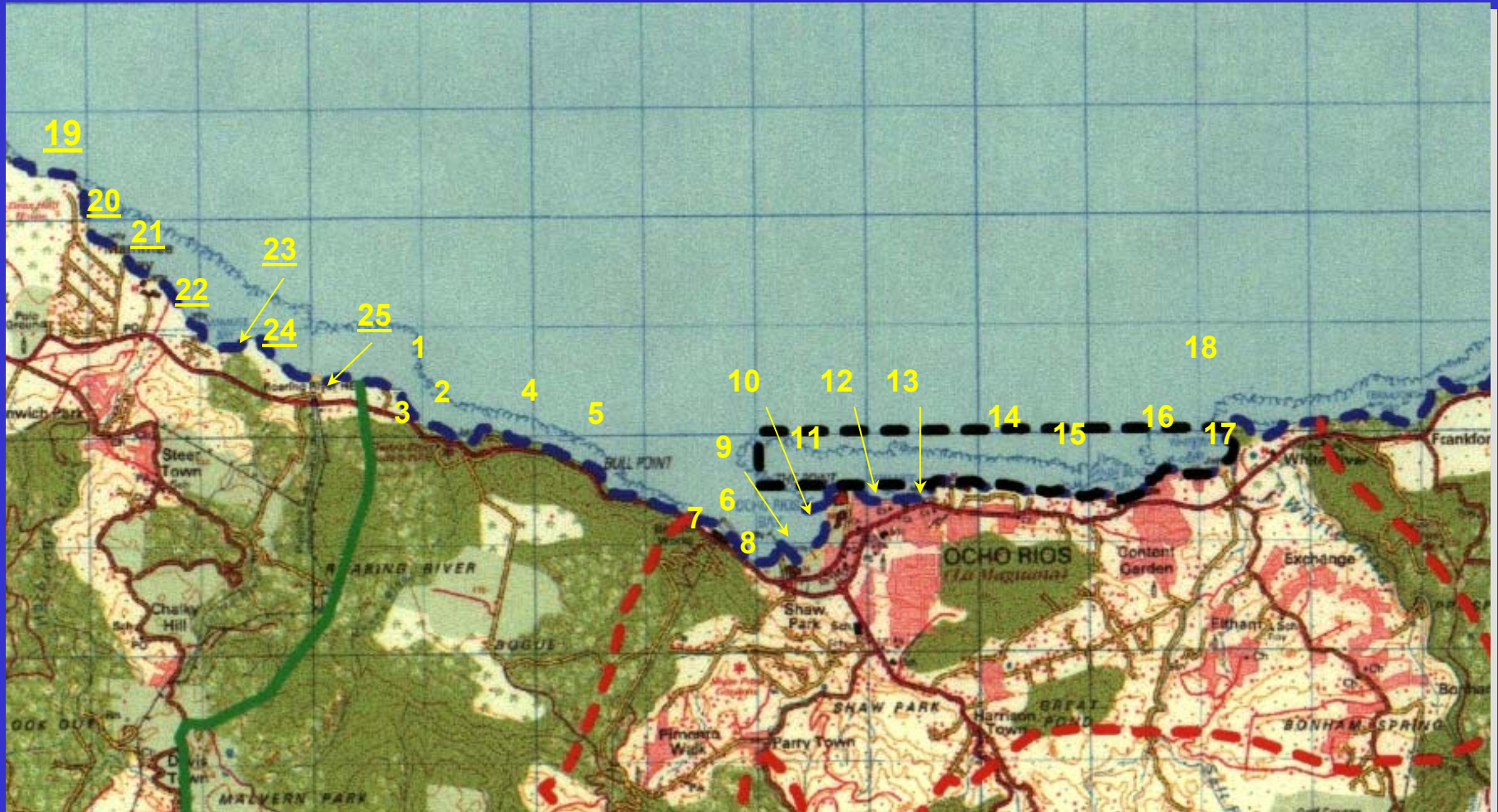
Nitrogen Concentration



**June
(2000)**

Ocho Rios Water Quality Data

<u>Location</u>	<u>Number of Sites</u>	<u>Category</u>
West Beaches	5	1
East Beaches	7	2
River Outfalls	7	3



Creating Enabling Frameworks

***Facilitated preparation and approval of
key policies by GOJ:***

- National Oceans and Coastal Zone Management Policy
- Environmental Management Systems Policy
- Sewage Connection Policy, leading to CAP
- National Water Policy (1999) embracing concepts of private-public partnerships

Sustainability – Issues to Address

- Transferring participatory approach for mobilizing communities
- Leaving behind strategic partners capable of leveraging funds
- Linking environmental initiatives to market-based incentives to participate
- Improving policy implementation
- Institutionalizing successful partnership models

EAST

Environmental Audits for Sustainable Tourism

- Designed to improve environmental performance of private tourism and manufacturing companies through the implementation of environmental management system (EMS).

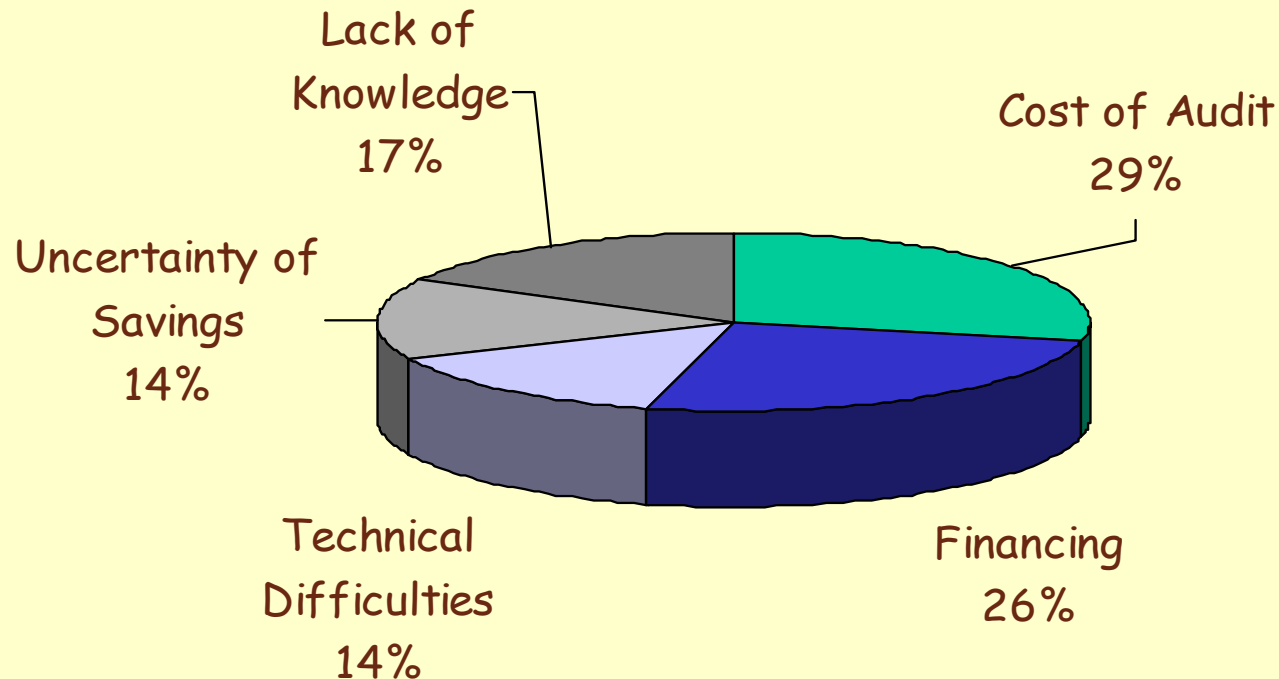
EAST

- The objectives of EAST include:
 - Greater awareness and understanding of the benefits of environmental management;
 - Upgrading the technical skills of management and staff;
 - Ensuring that the policies and programs of the Government of Jamaica encourage, the adoption of “best environmental management practices”;
 - Creating a model for public-private sector collaboration in pursuing a sustainable development approach to tourism and industrial development.

EAST

- In phases I and II, the EAST project audited 20 Jamaican hotels (property size from 15 to 200 rooms) and 10 local manufacturing companies.
- Audits focused on:
 - energy use
 - water use
 - wastewater generation
 - solid waste generation
 - use of chemicals
 - management and staff practices

Top Perceived Barriers to Becoming “Environmentally Friendly”



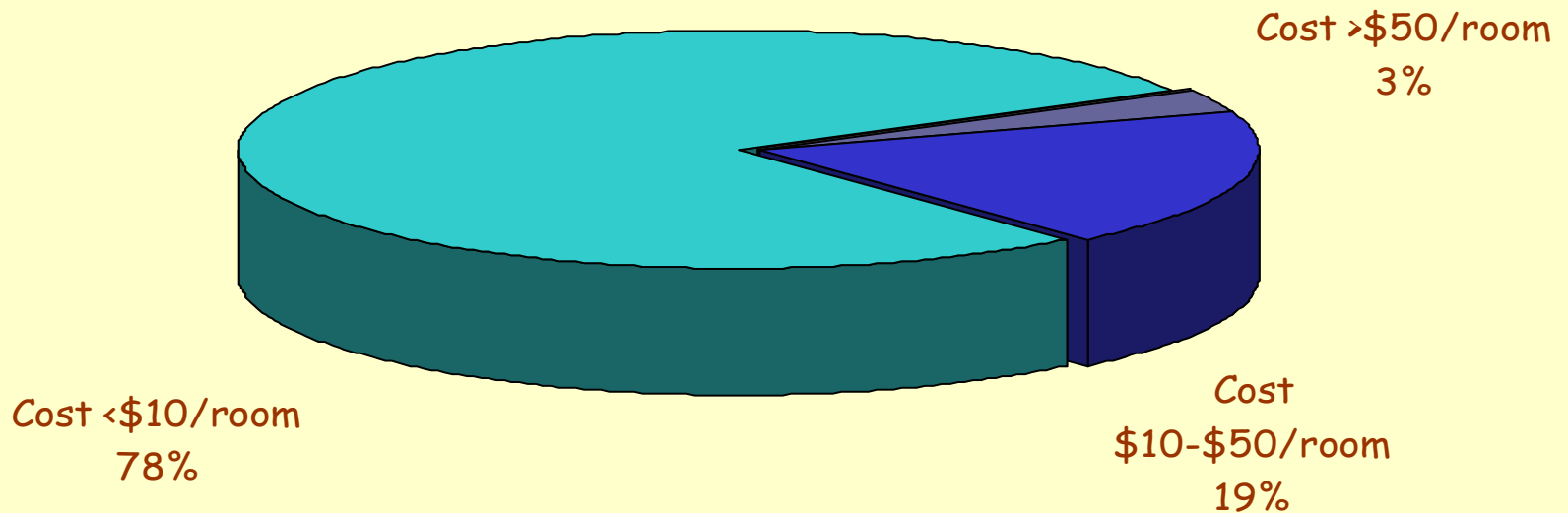
Source: Hagler Bailly Hotel Industry Survey

EAST Audits - General Findings

- Inefficient use of water
- Inefficient use of energy
- Excessive and unnecessary use of chemicals
- Excessive solid waste generation
- Staff operating procedures are not followed or enforced
- Poor (or no) monitoring

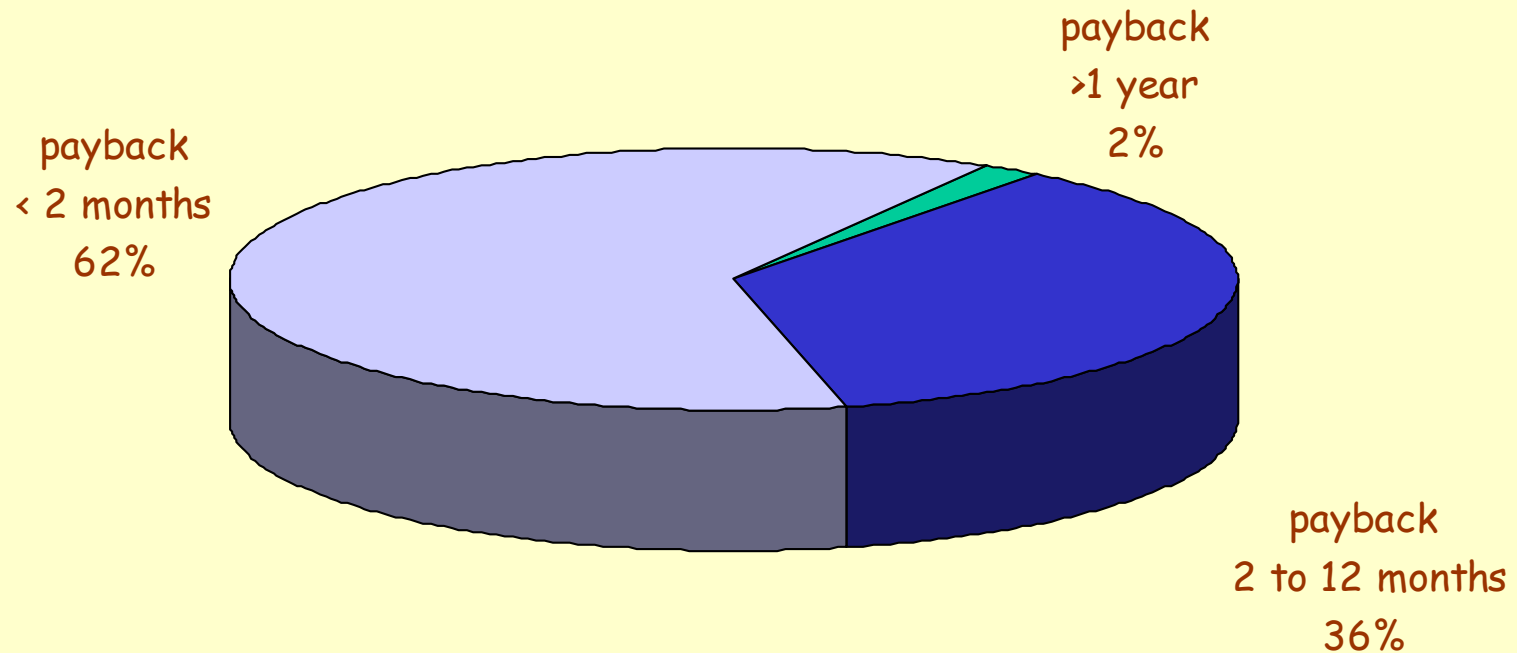
Environmental Audit Results for an Average Hotel

Breakdown of recommendations by implementation cost



Summary of Environmental Audit Results for an Average Hotel

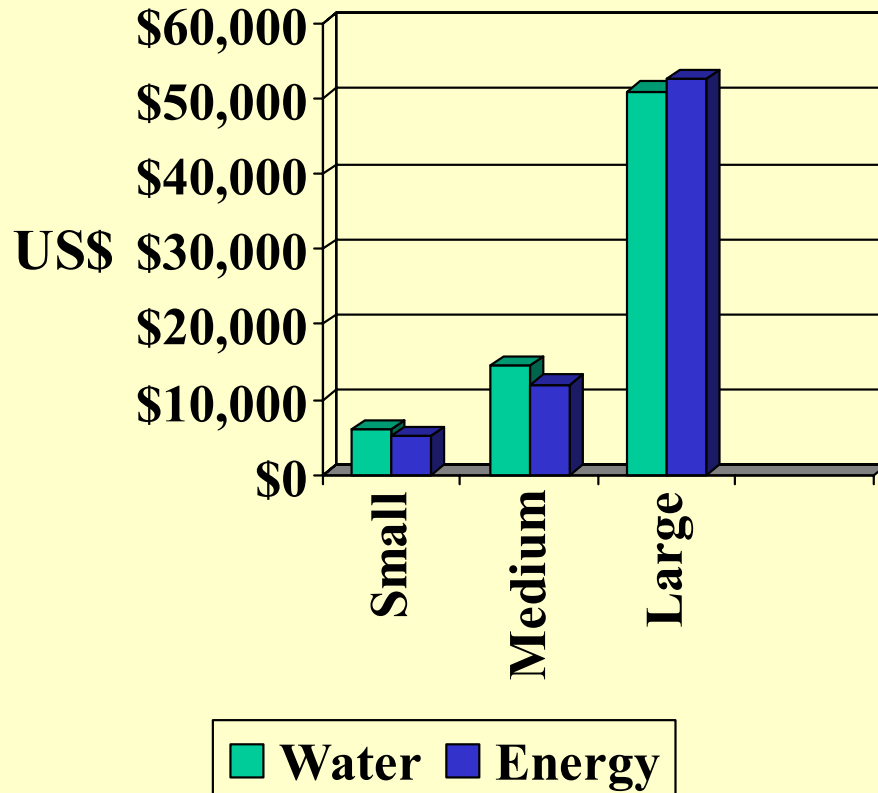
Breakdown of recommendations by payback period



Annual Payback for one hotel: \$250,000/yr

EAST Audits - Potential Savings

Estimated Annual Savings



Small Hotels

- Less than 30 rooms
- Average size = 20 rooms

Medium Hotels

- 30 to 100 rooms
- Average size = 48 rooms

Large Hotels*

- Greater than 100 rooms
- Average size = 194 rooms
- Includes audits performed outside EAST

Accomplishments of EAST

- Introduction and launch of the International Green Globe Certification Program in Jamaica
- First 4 Green Globe Hotels in the world
- International partnership with Fairmont Hotels (formerly Canadian Pacific)
- EAST model as international champion

Environmental Audits for Sustainable Tourism

- Duration: (Phase III)
 - Two and a half years (2000 - 2002)
- Funding:
 - US\$1.6 million
- Target Sites:
 - Hotels and Manufacturers in Negril, Port Antonio, Ocho Rios, Montego Bay, Kingston and the South Coast
- Collaborating Agencies:
 - JHTA, JMA, NEPA
- Technical Assistance:
 - PA Consulting Ltd.

Current Focus of EAST

- Development of new user-friendly, cost-effective audit protocol
- Additional 25 hotel audits
- Audits of 5 attractions and 5 manufacturing companies
- Development of a sustainable economic strategy for Portland
- Certification of Portland as a “Green Globe Destination”
- Institutional Strengthening of JHTA and JMA
- Introduction of Environmental Best Practices into Hospitality and Tourism Training

KEY ACCOMPLISHMENTS OF THE BILATERAL ENVIRONMENTAL PROGRAM IN JAMAICA

Policies

- Created enabling frameworks. Facilitated preparation and approval of key policies by GOJ:
 - *National Water Policy finalized in 1999 embracing concepts of public-private partnership*
 - *National Sewage Connection Policy and strategy developed and approved by Cabinet*
 - *National Environmental Management Systems Policy*
 - *National Policy on Ocean and Coastal Zone Management*
- Wastewater tariff increased 100% in 1999 for improved cost recovery

KEY ACCOMPLISHMENTS OF THE BILATERAL ENVIRONMENTAL PROGRAM IN JAMAICA

Organizational Strengthening

- Strengthening of civil society groups through an action planning approach for community mobilization developed & demonstrated
- Organizational capacity of 15 civil society groups strengthened through extensive management training.
 - *Capacity of local communities enhanced to identify & address environmental issues*
 - *24 grants, totaling almost \$US 1 million, disbursed to through these local partners for environmental management projects*
- Introduced and sustained public participation model, between communities and NWC, to oversee effective management of wastewater systems
 - *Memoranda Of Understanding (MOUs) enacted forming the Negril and Ocho Rios Wastewater Advisory and Monitoring Committees (AMCs) - a Public-Participation Experimental Model in wastewater management.*
 - *Strengthened NWC capacity for public private partnerships (PPP)*

KEY ACCOMPLISHMENTS OF THE BILATERAL ENVIRONMENTAL PROGRAM IN JAMAICA

Environmental Monitoring

Partnerships between NGOs, communities, private sector and government for monitoring coastal water quality created

- *Integrating community efforts into National Coastal Water Quality Monitoring Program*
- *Collection and analysis of samples for coastal water quality*
- Apply verifiable water quality data to environmental decision making
- Linking incentives for participation in WQM to “market factors”, such as Green Globe and Blue Flag programs
- Assisted NWC in Wastewater Management and Operations.
 - *Emphasis on improving and standardizing operator performance*

KEY ACCOMPLISHMENTS OF THE BILATERAL ENVIRONMENTAL PROGRAM IN JAMAICA

Environmental Management Systems

- Conducted audits of various tourism and manufacturing entities.
 - *Implementation of cost saving environmental practices in the hotel and manufacturing sectors.*
 - *9 Green Globe certified hotels.*
- Supported development of EMS policy for GOJ
 - *Green Paper in June, 2001*
- Improve EMS information access to public
 - *Support for pilot pollution register.*
 - *Bureau of Standards: Technical Information Clearinghouse for EMS*
- Supported Community-Based solid waste management

KEY ACCOMPLISHMENTS OF THE BILATERAL ENVIRONMENTAL PROGRAM IN JAMAICA

Education/Awareness

- Increased national and local appreciation for the environmental and economic significance of effective wastewater management
- Training of wastewater management and operations personnel and implementation of a certification program for wastewater operators.
- Comprehensive environmental education & action program supported in major tourist destinations
- Trained SMEs in EMS approaches

Strengths of USAID/Jamaica's Bilateral Environmental Program

- Targeted program which maximizes limited resources
- The ridge to reef concept
- Promotion of environmental management systems (EMS)
- Emphasis on sustainable systems
- Strong non-governmental organization (NGO) grant management program
- Emphasis on broad-based participation, strengthening civil society, democracy and governance and encouraging private sector involvement

Environmental (SO2) Program Activities Timeline

	FY 98				FY 99				FY 00				FY 01				FY 02				FY 03				FY 04				FY 05			
CWIP						5 years (12/18/97-12/17/02)																										
EAST													2.5 years (6/1/00 -12/1/02)																			
R2RW															5 years (7/7/00 -7/7/05)																	
New Project																						TBD (start 8/03?)										
STRATEGY												(FY 00 - FY 04)																				